## REMARKS/ARGUMENTS

The Official Action dated 04 May 2004 has been carefully considered, along with cited references, applicable sections of the Patent Act, Patent Rules.

Claim 3 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In response, claim 3 has been amended to overcome the rejection under 35 U.S.C. § 112, second paragraph, according to the Examiner's suggestions.

Claim 1 is rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Esakov et al. (US 3,930,917).

Claims 4-6 are rejected under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Esakov et al. (US 3,930,917) as to claim 1 above.

Claims 1 and 4-6 are rejected under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Dukess (US 4,107,247).

Claims 1 and 4-6 are rejected under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Eslinger et al (US 4,211,624) for essentially the same reasons set forth in numbered paragraph 7 above.

Claims 2-3 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Esakov et al. (US 3,930,917), Dukess (US 4,107,247) or Eslinger et al (US 4,211,624) as applied to claim 1 above, and further in view of either Ishiwatari et al. (US 5,958,164)

or Reedy et al. (US 5,302,624).

Applicant respectfully submits that the present invention is significantly different from that of the cited arts as can be seen from their respective structures. Applicant's invention as specified in the amended claims 1, 3 and 6 is patentably distinguishable over these references when taken either singularly or in combination for the following reasons:

The Examiner cites Esakov et al. (US 3,930,917), Dukess (US 4,107,247) or Eslinger et al (US 4,211,624) to reject claims 1 and 4-6.

For claims 2-3, the Examiner further cites Ishiwatari et al. (US 5,958,164) or Reedy et al. (US 5,302,624) as examples of inject gases such as carbon dioxide or butane to a foamable core layer before the layers are extruded through an extrusion die such as in notoriously well known in the art as exemplified in the teachings of Ishiwatari et al (abstract; col. 9 lines 13-21; col. 14 lines 5-13) or Reedy et al (abstract; col. 2 lines 55-63).

However, actually, both Ishiwatari et al and Reedy et al disclose a single foaming sheet by injecting gases into a foamable core layer, but fail to disclose three layered sheet having an intermediate foamable material layer disposed and squeezed between two outer plastic material layers.

Actually, as disclosed in Esakov et al. (US 3,930,917), Dukess (US 4,107,247) or Eslinger et al (US 4,211,624), three or more layers may be squeezed or formed together by rollers. Normally, the three or more layers are prefoamed by foamable agents. It is required to provide a number of blowing machines or mechanisms

to inject gas into the foamable material, and it also requires a number of squeezing machines or mechanisms to squeeze three or more layers together, such that it will be difficult to inject gas into the foamable material before the three or more layers may be squeezed together. Accordingly, the three or more layers are normally prefoamed by foamable agents.

This is the reason why none of the cited arts disclose a gas that may be injected into an intermediate foamable material layer which will then be disposed and squeezed between two outer plastic material layers after the air injecting process.

By contrast, in Applicant's invention, as amended in the amended claims 1, 3 and 6, a gas is injected into the foamable material (21), and the foamable material (21) and two plastic materials (20) are then squeezed together to form a board (10) having two outer layers (13, 14) formed by the plastic materials, and an intermediate layer (12) formed by the air-injected foamable material (21).

The cited arts fail to teach a gas that may be injected into a foamable material (21), and simultaneously, the foamable material (21) and two plastic materials (20) will then be squeezed together to form a board (10) having two outer layers (13, 14) formed by the harder plastic materials, and an intermediate layer (12) formed by the air-injected and softer foamable material. The applicant's invention is different from that of the cited arts and has improved over the cited arts.

In view of the foregoing amendments and remarks, applicant respectfully submits that the present invention is patentably

distinguishable over the cited arts and that the application is now in condition for allowance, and such action is earnestly solicited.

Courtesy and cooperation of Examiner YAO are appreciated.

respectfully submitted,

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